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FILE 'HOME' ENTERED AT 11:19:01 ON 17 JUL 2010

=> file .pensee

COST IN U.S. DOLLARS

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TOTAL

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SESSION

FULL ESTIMATED COST

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FILE 'USPATFULL' ENTERED AT 11:21:29 ON 17 JUL 2010

CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

=> e miethe p/au

E1	1	MIETHE N/AU
E2	3	MIETHE NORBERT/AU
E3	37 -->	MIETHE P/AU
E4	64	MIETHE PETER/AU
E5	3	MIETHE R/AU
E6	1	MIETHE RALF/AU
E7	1	MIETHE REINER/AU
E8	2	MIETHE REINHARD/AU
E9	6	MIETHE S/AU
E10	3	MIETHE SUSANNE/AU
E11	1	MIETHE T D/AU
E12	1	MIETHE TANJA/AU

=> s e3

L1 37 "MIETHE P"/AU

=> dup rem l1

PROCESSING COMPLETED FOR L1

L2 21 DUP REM L1 (16 DUPLICATES REMOVED)

=> d l2 1-21 ti

L2 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Solid fermentation of filamentous fungi in a bioreactor with modular  
desing

L2 ANSWER 2 OF 21 ANABSTR COPYRIGHT 2010 RSC on STN  
TI CRP determination based on a novel magnetic biosensor.

L2 ANSWER 3 OF 21 MEDLINE on STN DUPLICATE 1  
TI Determination of cyclosporin A in 20% ethanol by a magnetic beads-based  
immunofluorescence assay.

L2 ANSWER 4 OF 21 MEDLINE on STN DUPLICATE 2  
TI Antigen--antibody interactions in the reverse micellar system: quenching  
of the fluorecence of fluorescein-labeled atrazine by antibodies against  
atrazine.

L2 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 3  
TI Diffusion in lyotropic mesophases used as matrix for biocatalysts in  
organic solvents

L2 ANSWER 6 OF 21 ANABSTR COPYRIGHT 2010 RSC on STN  
TI Immunoaffinity chromatographic method for the detection of pesticides.

L2 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 4  
TI Enzymes entrapped in liquid crystals - a novel approach for biocatalysis  
in non-aqueous media

L2 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Continuous enzymic reduction in a two-phase-system lyotropic liquid  
crystal/organic solvent with enzymic cofactor regeneration

L2 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 5  
TI Epoxidation in lyotropic mesophases

L2 ANSWER 10 OF 21 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on  
STN  
TI ENZYME KINETICS OF CYANOHYDRIN SYNTHESIS WITH RESPECT TO SUBSTANCE  
TRANSPORT PROCESSES IN A SYSTEM CONTAINING LYOTROPIC LIQUID CRYSTAL AND AN  
ORGANIC SOLVENT.

L2 ANSWER 11 OF 21 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on  
STN  
TI CONTINUOUS STEROID TRANSFORMATION IN A SYSTEM CONTAINING LYOTROPIC LIQUID  
CRYSTAL CELLULOSE AND AN ORGANIC SOLVENT.

L2 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Extractive biocatalysis in lyotropic liquid crystal/organic solvent media

L2 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 6  
TI Microbial steroid conversion in lyotropic liquid crystals

L2 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 7  
TI Phase diagram of the system  
dihexadecylphosphatidylcholine/dihexadecylphosphatidic acid/water/sodium  
hydroxide at pH = 14

L2 ANSWER 15 OF 21 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on  
STN  
TI PHASE DIAGRAMS OF PSEUDO-BINARY PHOSPHOLIPID SYSTEMS IV. PRELIMINARY

RESULTS ABOUT THE EFFECTS OF LITHIUM CHLORIDE AND CALCIUM CHLORIDE ON THE  
PHASE TRANSITIONS OF AMPHOTERIC PHOSPHOLIPIDS IN AQUEOUS DISPERSIONS.

- L2 ANSWER 16 OF 21 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on  
STN
- TI PHASE DIAGRAMS OF PSEUDO-BINARY PHOSPHOLIPID SYSTEMS III. INFLUENCE OF THE  
HEAD GROUP METHYLATION ON THE MISCIBILITY BEHAVIOR OF N METHYLATED  
PHOSPHATIDYLETHANOLAMINE MIXTURES IN AQUEOUS DISPERSIONS.
- L2 ANSWER 17 OF 21 MEDLINE on STN
- TI Phase diagrams of pseudo-binary phospholipid systems. II. Selected  
calorimetric studies on the influence of branching on the mixing  
properties of phosphatidylcholines.
- L2 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 8
- TI Enzymes in lyotropic liquid crystal - a new method of bioconversion in  
nonaqueous media
- L2 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 9
- TI The phase diagram of 1,2-dipalmitoyl-sn-glycero-3-phosphocholine/sucrose  
in the dry state. Sucrose substitution for water in lamellar mesophases
- L2 ANSWER 20 OF 21 MEDLINE on STN DUPLICATE 10
- TI Phase diagrams of pseudo-binary phospholipid systems. I. Influence of the  
chain length differences on the miscibility properties of  
cephaline/cephaline/water systems.
- L2 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 11
- TI Influence of annealing on the thermotropic phase behavior of homologous  
cephalins in the water-saturated heterogeneous two phase region

=> d 12 2-3 ibib abs

- L2 ANSWER 2 OF 21 ANABSTR COPYRIGHT 2010 RSC on STN
- AB The c-reactive protein (CRP) is a very significant human blood marker for  
inflammatory processes and is routinely determined for many clinical  
purposes. The widespread and well established detection method for this  
.apprx.115 kDa hepatic protein is the high-sensitivity ELISA assay  
(hsCRP-ELISA) in blood serum. New approaches in medical CRP diagnosis  
(e.g. for CVD, inflammatory bowel disease) require rapid quantification in  
native matrices. A novel CRP determination method based on magnetic  
detection is described and tested for human blood serum, saliva and urine.  
The detection principle is based on two different anti-CRP antibodies  
(monoclonal, IgG) for CRP trapment and labelling. The linear detection  
range of this immunosensor ranged from 25 ng/ml to 2.5 µg/ml and is  
therefore much more sensitive than typical hsCRP-ELISA-assays.
- L2 ANSWER 3 OF 21 MEDLINE on STN DUPLICATE 1
- ACCESSION NUMBER: 1999241000 MEDLINE <<LOGINID::20100717>>
- DOCUMENT NUMBER: PubMed ID: 10222015
- TITLE: Determination of cyclosporin A in 20% ethanol by a magnetic  
beads-based immunofluorescence assay.
- AUTHOR: Kiselev M V; Gladilin A K; Melik-Nubarov N S; Sveshnikov P  
G; Miethe P; Levashov A V
- CORPORATE SOURCE: Chemistry Department, Moscow State University, Moscow,  
Russia.
- SOURCE: Analytical biochemistry, (1999 May 1) Vol. 269, No. 2, pp.  
393-8.  
Journal code: 0370535. ISSN: 0003-2697. L-ISSN: 0003-2697.
- PUB. COUNTRY: United States

DOCUMENT TYPE: (COMPARATIVE STUDY)  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199906  
 ENTRY DATE: Entered STN: 28 Jun 1999  
 Last Updated on STN: 28 Jun 1999  
 Entered Medline: 15 Jun 1999

AB A rapid magnetic beads-based immunoassay for the immunodepressant drug cyclosporin A (CsA) has been developed. The method allows CsA determination in medium with a higher content of ethanol compared to conventional immunochemical techniques due to increased antibody stability. Monitoring of the drug in ethanol extracts from patient's whole blood without many-fold dilution with aqueous buffer is possible. The assay has adequate specificity and sensitivity for CsA to be suitable for the routine monitoring of therapy.  
 Copyright 1999 Academic Press.

=> e krause h/au

E1	1	KRAUSE GUSTAVE A/AU
E2	3	KRAUSE GYULA/AU
E3	1094 -->	KRAUSE H/AU
E4	2	KRAUSE H A/AU
E5	4	KRAUSE H B/AU
E6	11	KRAUSE H BRIGITTE/AU
E7	1	KRAUSE H C/AU
E8	12	KRAUSE H D/AU
E9	38	KRAUSE H E/AU
E10	191	KRAUSE H F/AU
E11	7	KRAUSE H G/AU
E12	191	KRAUSE H H/AU

=> e krause hans-joachim/au

E1	15	KRAUSE HANS W/AU
E2	23	KRAUSE HANS WALTER/AU
E3	0 -->	KRAUSE HANS-JOACHIM/AU
E4	39	KRAUSE HANSWALTER/AU
E5	1	KRAUSE HANSWERNER/AU
E6	13	KRAUSE HARALD/AU
E7	1	KRAUSE HARALD DIPL PHYS ING/AU
E8	4	KRAUSE HARDY/AU
E9	1	KRAUSE HARM/AU
E10	1	KRAUSE HAROLD/AU
E11	2	KRAUSE HAROLD E/AU
E12	3	KRAUSE HAROLD EUGENE/AU

=> e krause hans/au

E1	7	KRAUSE HANNAH/AU
E2	5	KRAUSE HANNAH G/AU
E3	327 -->	KRAUSE HANS/AU
E4	1	KRAUSE HANS DIETER/AU
E5	1	KRAUSE HANS DIPL PHYS DIPL ING/AU
E6	1	KRAUSE HANS F A E/AU
E7	6	KRAUSE HANS G/AU
E8	2	KRAUSE HANS H/AU
E9	1	KRAUSE HANS HINRICH/AU
E10	18	KRAUSE HANS J/AU
E11	1	KRAUSE HANS JOACHI/AU
E12	133	KRAUSE HANS JOACHIM/AU

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=> s e10-e12
L3      151 ("KRAUSE HANS J"/AU OR "KRAUSE HANS JOACHI"/AU OR "KRAUSE HANS
        JOACHIM"/AU)

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4      127 DUP REM L3 (24 DUPLICATES REMOVED)

=> s l4 and oscillator
L5      3 L4 AND OSCILLATOR

=> s l4 and magnetic
L6      31 L4 AND MAGNETIC

=> d l6 1-31 ti

L6      ANSWER 1 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Suppression of ringing in the tuned input circuit of a SQUID detector used
        in low-field NMR measurements

L6      ANSWER 2 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      High-performance low-field NMR utilizing a high-Tc rf SQUID

L6      ANSWER 3 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      The effect of low frequency disturbance to SQUID based low field NMR

L6      ANSWER 4 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Low-field NMR measurement procedure when SQUID detection is used

L6      ANSWER 5 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Nuclear magnetic resonance in the earth's magnetic
        field using a nitrogen-cooled superconducting quantum interference device

L6      ANSWER 6 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      High-temperature superconducting quantum interference device with cooled
        LC resonant circuit for measuring alternating magnetic fields
        with improved signal-to-noise ratio

L6      ANSWER 7 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Liquid state nuclear magnetic resonance at low fields using a
        nitrogen cooled superconducting quantum interference device

L6      ANSWER 8 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Magnetic particle detection by frequency mixing for immunoassay
        applications

L6      ANSWER 9 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Francisella tularensis detection using magnetic labels and a
        magnetic biosensor based on frequency mixing

L6      ANSWER 10 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Magnetic biosensor for the detection of Yersinia pestis

L6      ANSWER 11 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      CRP determination based on a novel magnetic biosensor

L6      ANSWER 12 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN
TI      Detection of magnetic contaminations in industrial products
        using HTS SQUIDS

L6      ANSWER 13 OF 31  CAPLUS  COPYRIGHT 2010 ACS on STN

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TI Method and device for selectively detecting ferromagnetic or  
 superparamagnetic particles

L6 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Recording fetal and adult magnetocardiograms using high-temperature  
 superconducting quantum interference device gradiometers

L6 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Long baseline hardware gradiometer based on HTS rf-SQUIDs with substrate  
 resonators

L6 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Structure inspection with LN2 cooled SQUID-array

L6 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 TI Nondestructive examination of prestressed tendons by the magnetic  
 stray field method

L6 ANSWER 18 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI A voltage biased superconducting quantum interference device bootstrap  
 circuit

L6 ANSWER 19 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI Inspection of prestressed concrete structural members with  
 magnetic methods  
 Prufung von spannbetonbauteilen mit magnetischen methoden

L6 ANSWER 20 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI HTS rf SQUID system for magnetic nanoparticle detection

L6 ANSWER 21 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI High-temperature superconducting quantum interference device with cooled  
 LC resonant circuit for measuring alternating magnetic fields  
 with improved signal-to-noise ratio

L6 ANSWER 22 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI Radar-magnetic concrete testing - A novel technique for  
 determination of moisture and salinity of concrete bridge decks  
 Radar-Magnet-Betontest Eine neue Methode zur Bestimmung der Feuchte und  
 des Chloridgehalts von Bruckenfahrbahnplatten aus Beton

L6 ANSWER 23 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI Conductivity tomography for non-destructive evaluation using pulsed eddy  
 current with HTS SQUID magnetometer

L6 ANSWER 24 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI HTS SQUID gradiometer using substrate resonators operating in an  
 unshielded environment - A portable MCG system

L6 ANSWER 25 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI Adaptive frequency dependent gradiometry applied to SQUID  
 magnetocardiography

L6 ANSWER 26 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN  
 TI Magnetic field measurements on bridges and development of a  
 mobile SQUID-system

L6 ANSWER 27 OF 31 METADEX COPYRIGHT 2010 CSA on STN  
 TI Inspection of Prestressed Concrete Members using the Magnetic  
 Leakage Flux Measurement Method - Estimation of Detection Limit.

L6 ANSWER 28 OF 31 USPATFULL on STN  
 TI METHOD FOR IDENTIFYING A SAMPLE IN A CONTAINER, E.G. WHEN CONDUCTING A TRAVELER SURVEY IN THE CHECK-IN AREA, BY DETERMINING THE RESONANCE FREQUENCY AND THE QUALITY OF A DIELECTRIC RESONATOR TO WHICH THE CONTAINER IS ARRANGED

L6 ANSWER 29 OF 31 USPATFULL on STN  
 TI Method and device for selectively detecting ferromagnetic or superparamagnetic particles.

L6 ANSWER 30 OF 31 USPATFULL on STN  
 TI Device and method for suppressing signals when inspecting prestressed construction elements

L6 ANSWER 31 OF 31 USPATFULL on STN  
 TI Dispersion photometer, in particular for the kinetic determination of total proteins

=> d 1-4, 6, 8, 10, 11-13, 20, 21, 26, 28 ibib abs

L6 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2010:60219 CAPLUS <<LOGINID::20100717>>  
 DOCUMENT NUMBER: 152:420675  
 TITLE: Suppression of ringing in the tuned input circuit of a SQUID detector used in low-field NMR measurements  
 AUTHOR(S): Dong, Hui; Zhang, Yi; Krause, Hans-Joachim; Xie, Xiaoming; Braginski, Alex I.; Offenhaeusser, Andreas  
 CORPORATE SOURCE: Institute of Bio- and Nanosystems, Forschungszentrum Juelich, Juelich, D-52425, Germany  
 SOURCE: Superconductor Science and Technology (2009), 22(12), 125022/1-125022/7  
 CODEN: SUSTEF; ISSN: 0953-2048  
 PUBLISHER: Institute of Physics Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB In low-field NMR measurements, we employ a high temperature superconducting quantum interference device (SQUID) as a detector with an inductively coupled liquid-N-cooled LC tuned input circuit. However, ringing across the LC circuit appears after the sudden switch-off of the prepolarizing magnetic field. This ringing leads to instability of the SQUID readout and prevents the acquisition of short-relaxation-time signals. We developed and tested 2 simple and effective FET-based Q switch circuits with adjustable parameters which suppress the ringing. Each of these Q switches makes it possible to record free induction decay signals with a Larmor frequency of 1.2 kHz and an effective relaxation time constant of 30 ms. A gradually changing current caused by the release of charges stored in the p-n junction of the FET, which delays the Q value recovery of the LC circuit, can only be observed by the SQUID because of its frequency-independent sensitivity.  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2009:1038802 CAPLUS <<LOGINID::20100717>>  
 DOCUMENT NUMBER: 153:74317  
 TITLE: High-performance low-field NMR utilizing a high-Tc rf SQUID  
 AUTHOR(S): Qiu, Longqing Q.; Zhang, Yi; Krause, Hans-Joachim; Braginski, Alex I.; Tanaka, Saburo;

Offenhausser, Andreas  
CORPORATE SOURCE: Pohl Institute of Solid State Physics, Tongji  
University, Shanghai, 200092, Peop. Rep. China  
SOURCE: IEEE Transactions on Applied Superconductivity (2009),  
19(3, Pt. 1), 831-834  
CODEN: ITASE9; ISSN: 1051-8223  
PUBLISHER: Institute of Electrical and Electronics Engineers  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB High-resolution low-field NMR signals of selected liquid samples were recorded using a nitrogen-cooled superconducting quantum interference device (SQUID). The NMR measurements were performed at Larmor frequencies (fL) from 2 Hz to 40 kHz. The natural spectral linewidth of tap water could be measured in magnetic fields below 7 microtesla. To demonstrate the measurement sensitivity and resolution, J-coupling spectra of 2,2,2-trifluoroethanol were recorded at different measurement fields, with signals separated by several hundreds of Hertz. An addnl. nitrogen-cooled tuned LC-circuit and a signal recovery procedure involving a  $\pi/2$  AC pulse were applied in the higher fL region (>10 kHz) to enhance the signal-to-noise ratio up to one order of magnitude.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1038801 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 153:103017  
TITLE: The effect of low frequency disturbance to SQUID based  
low field NMR  
AUTHOR(S): Qiu, Longqing; Krause, Hans-Joachim; Zhang,  
Yi; Dong, Hui; Braginski, Alex I.; Offenhausser,  
Andreas  
CORPORATE SOURCE: Pohl Institute of Solid State Physics, Tongji  
University, Shanghai, 200092, Peop. Rep. China  
SOURCE: IEEE Transactions on Applied Superconductivity (2009),  
19(3, Pt. 1), 827-830  
CODEN: ITASE9; ISSN: 1051-8223  
PUBLISHER: Institute of Electrical and Electronics Engineers  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The influence of low-frequency magnetic field disturbances on SQUID based low field (LF) NMR (NMR) measurements is investigated. Two types of sinusoidal fields, a homogeneous field and a linear gradient field, were applied as artificial disturbance sources. The influences on the free induction decay (FID) signals as well as on the spectra are discussed. The homogeneous disturbance field caused a frequency modulation of the FID signal. The measured spectra were found to be in good agreement with calculated traces obtained from a solution to the Bloch equation. The gradient disturbance field yielded an amplitude-modulated FID signal. In both cases, frequency mixing lines were observed. It is shown that for disturbances at the power line frequency and harmonics, the influence on the NMR spectra is negligible.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:119270 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 151:394472  
TITLE: Low-field NMR measurement procedure when SQUID  
detection is used  
AUTHOR(S): Qiu, Longqing; Zhang, Yi; Krause, Hans-Joachim  
; Braginski, Alex I.; Offenhaeusser, Andreas



CORPORATE SOURCE: Institute of Bio- and Nanosystems, Research Center  
Juelich, Juelich, D-52425, Germany  
SOURCE: Journal of Magnetic Resonance (2009), 196(2), 101-104  
CODEN: JMARF3; ISSN: 1090-7807  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB In reported low-field NMR measurements using Superconducting Quantum Interference Device (SQUID) detection, the pre-polarizing magnetic field has been usually oriented orthogonal to the measuring field,  $B_{p1}B_m$ . Melton et al. systematically analyzed the consequences of  $B_p$  decay in time after turnoff and showed that this decay should be nonadiabatic. We evaluated our measuring procedure in the light of that anal., and found good quant. agreement. It was showed that, when the decay time constant is comparable to the precession period of the magnetization of the sample,  $M$ , the optimum procedure is to orient  $B_p$  parallel to  $B_m$  and to apply a  $\pi/2$  pulse to flip  $M$ , similar as in the case of conventional NMR.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:725073 CAPLUS <<LOGINID::20100717>>

TITLE: High-temperature superconducting quantum interference device with cooled LC resonant circuit for measuring alternating magnetic fields with improved signal-to-noise ratio

AUTHOR(S): Qiu, Longqing; Zhang, Yi; Krause, Hans-Joachim  
; Braginski, Alex I.; Usoskin, Alexander

CORPORATE SOURCE: Institute of Bio- and Nanosystem (IBN-2), Research Center Juelich, Juelich, D-52425, Germany

SOURCE: Review of Scientific Instruments (2007), 78(5),  
054701/1-054701/5

CODEN: RSINAK; ISSN: 0034-6748

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Certain applications of superconducting quantum interference devices (SQUIDS) require a magnetic field measurement only in a very narrow frequency range. In order to selectively improve the alternating-current (ac) magnetic field sensitivity of a high-temperature superconductor SQUID for a distinct frequency, a single-coil

LC resonant circuit has been used. Within the liquid nitrogen bath, the coil surrounds the SQUID and couples to it inductively. Copper coils with different nos. of windings were used to cover the frequency range from <1 to nearly 100 kHz. A superconducting coil made of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7- $\delta$</sub>  tape conductor was also tested. With the LC circuit, the signal-to-noise ratio of measurements could be improved typically by one order of magnitude or more in a narrow frequency band around the resonance frequency exceeding a few kilohertz. The best attained equivalent magnetic field resolution was 2.5 fT /  $\sqrt{\text{Hz}}$  at 88 kHz. The exptl. findings are in good agreement with math. anal. of the circuit with copper coil.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:303191 CAPLUS <<LOGINID::20100717>>

DOCUMENT NUMBER: 147:4576

TITLE: Magnetic particle detection by frequency mixing for immunoassay applications  
AUTHOR(S): Krause, Hans-Joachim; Wolters, Norbert; Zhang, Yi; Offenhaeusser, Andreas; Mieth, Peter; Meyer, Martin H. F.; Hartmann, Markus; Keusgen, Michael  
CORPORATE SOURCE: Institute of Bio and Nano Systems, IBN-2: Bioelectronics, CNI - Center of Nanoelectronic Systems for Information Technology, Forschungszentrum Juelich, Juelich, 52425, Germany  
SOURCE: Journal of Magnetism and Magnetic Materials (2007), 311(1), 436-444  
CODEN: JMMMD; ISSN: 0304-8853  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB For magnetic immunoassay applications, a novel magnetic reader for quantification of magnetic particle concns. has been developed. Upon magnetic excitation at two distinct frequencies incident on the sample, the response signal generated at a sum frequency is detected. The low-frequency field component periodically drives the magnetic particles into saturation, which is probed by the high-frequency field. The appearance of frequency mixing lines is highly specific to the nonlinearity of the superparamagnetic particles' magnetization. The optimization of field coils, differential pickup coil, preamplifier, demodulators and filters are discussed. The output signal is linear for four orders of magnitude in iron concentration

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:104277 CAPLUS <<LOGINID::20100717>>

DOCUMENT NUMBER: 147:66970

TITLE: Magnetic biosensor for the detection of Yersinia pestis

AUTHOR(S): Meyer, Martin H. F.; Stehr, Matthias; Bhuj, Sabin; Krause, Hans-Joachim; Hartmann, Markus; Mieth, Peter; Singh, Mahavir; Keusgen, Michael

CORPORATE SOURCE: Institute for Pharmaceutical Chemistry, Philipps-Universitaet Marburg, Marburg, D-35032, Germany

SOURCE: Journal of Microbiological Methods (2007), 68(2), 218-224

CODEN: JMIMDQ; ISSN: 0167-7012

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel type of magnetic beads-based magnetic biosensor is described for the detection of Yersinia pestis. Expts. were performed with the antigen fraction F1 of these bacteria. The magnetic sensor platform offers easy and reliable detection of Y. pestis by the use of magnetic beads for labeling and quantification in a single step due to their paramagnetic features. The system uses antiYPF1 antibodies as capture element on ABICAP columns as core element of the magnetic sensor. Several immobilization methods for antibodies on polyethylene were exploited. The established biosensor has a linear detection range of 25-300 ng/mL Y. pestis antigen F1 and a detection limit of 2.5 ng/mL in buffer and human blood serum. The presented sensor system is small, simple, portable, and therefore

usable as off-lab detection unit for medical and warfare analytes.  
OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS  
RECORD (19 CITINGS)  
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2006:1326343 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 146:161017  
TITLE: CRP determination based on a novel magnetic  
biosensor  
AUTHOR(S): Meyer, Martin H. F.; Hartmann, Markus; Krause,  
Hans-Joachim; Blankenstein, Gert; Mueller-Chorus,  
Birgit; Oster, Juergen; Miethe, Peter; Keusgen,  
Michael  
CORPORATE SOURCE: Institute for Pharmaceutical Chemistry,  
Philipps-University, Marburg, Germany  
SOURCE: Biosensors & Bioelectronics (2007), 22(6), 973-979  
CODEN: BBIOE4; ISSN: 0956-5663  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB C-reactive protein (CRP) is a very significant human blood marker for  
inflammatory processes and is routinely determined for many clin. purposes.  
The widespread and well established detection method for this .apprx.115  
kDa hepatic protein is the high-sensitivity ELISA assay (hsCRP-ELISA) in  
blood serum. New approaches in medical CRP diagnosis (e.g. for CVD,  
inflammatory bowel disease) require rapid quantification in native  
matrixes. A novel CRP determination method based on magnetic detection  
is described and tested for human blood serum, saliva and urine. The  
detection principle is based on two different anti-CRP antibodies  
(monoclonal, IgG) for CRP entrapment and labeling. The linear detection  
range of this immunosensor ranged from 25 ng/mL to 2.5 µg/mL and is  
therefore much more sensitive than typical hsCRP-ELISA-assays.

OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS  
RECORD (17 CITINGS)  
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2005:598097 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 143:316401  
TITLE: Detection of magnetic contaminations in  
industrial products using HTS SQUIDS  
AUTHOR(S): Krause, Hans-Joachim; Panaitov, Grigory I.;  
Wolters, Norbert; Lomparski, Dieter; Zander, Willi;  
Zhang, Yi; Oberdoerffer, Elmar; Wollersheim, Dirk;  
Wilke, Winfried  
CORPORATE SOURCE: Forschungszentrum Juelich, Juelich, 52425, Germany  
SOURCE: IEEE Transactions on Applied Superconductivity (2005),  
15(2, Pt. 1), 729-732  
CODEN: ITASE9; ISSN: 1051-8223  
PUBLISHER: Institute of Electrical and Electronics Engineers  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Many products in the pharmaceutical and food industry are packaged in  
metalized wrappings. With standard high-frequency search coil metal  
detectors, they can only be tested for metal contaminations before they  
are wrapped. However, a key requirement of industrial quality control is  
the inspection of the products at the end of the production line. We have  
developed an inspection system for detecting the magnetic

remanence of the contaminants. The system utilizes two HTS rf SQUID magnetometers with step edge junctions immersed in liquid nitrogen. The SQUIDS are arranged such that they cover the product channel in a rotated planar electronic gradiometer configuration. In order to suppress the low-frequency magnetic disturbances typically found in industrial environment, the product channel and the SQUID system were mounted inside a coaxial three-layer Mumetal shield. In combination with the gradiometric suppression, homogeneous low-frequency disturbance fields were attenuated by a factor of 400,000. The sensitivity of the system for small magnetic particles was determined exptl., using numerous steel balls and splinters. A stainless steel particle of 3  $\mu$ g, corresponding to a sphere diameter of 0.09 mm, was detected with and without aluminized wrapping.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)  
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2004:740570 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 141:252811  
TITLE: Method and device for selectively detecting ferromagnetic or superparamagnetic particles  
INVENTOR(S): Miethe, Peter; Krause, Hans-joachim; Zhang, Yi; Wolters, Norbert; Plaksin, Dmitry  
PATENT ASSIGNEE(S): Forschungszentrum Juelich GmbH, Germany  
SOURCE: PCT Int. Appl., 44 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004077044	A1	20040910	WO 2004-DE149	20040130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10309132	A1	20041118	DE 2003-10309132	20030228
EP 1597573	A1	20051123	EP 2004-706604	20040130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006519366	T	20060824	JP 2006-501481	20040130
US 20070155024	A1	20070705	US 2007-547444	20070209
PRIORITY APPLN. INFO.:			DE 2003-10309132	A 20030228
			WO 2004-DE149	W 20040130

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention relates to a method for selectively detecting and/or quantifying superparamagnetic and/or ferromagnetic particles on analytes. The method is characterized in that a frequency component of the magnetic fields, which is generated due to the nonlinearity of the magnetization characteristic curve of the particles, is measured at a mixing frequency. A device for selectively detecting and/or quantifying superparamagnetic and/or ferromagnetic particles on analytes comprises the following: a container that contains particles, which are to be detected

and/or quantified, on analytes; at least one oscillator for generating frequencies of alternating magnetic fields; at least one field generator for subjecting the analytes to alternating magnetic fields; a magnetic field sensor for measuring a response magnetic field of the particles, and; at least one phase-sensitive detector. These elements are configured in such a manner as to enable a frequency component of the magnetic fields, which is generated due to the nonlinearity of the magnetization characteristic curve of the particles, to be measured at a mixing frequency.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
(4 CITINGS)  
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN

ACCESSION NUMBER: 2010-0112611287 COMPENDEX <<LOGINID::20100717>>

TITLE: HTS rf SQUID system for magnetic nanoparticle  
detection

AUTHOR(S): Pretzell Alf; Krause Hans-Joachim; Zhang Yi;  
Offenhausser Andreas

CORPORATE SOURCE: Pretzell Alf; Krause Hans-Joachim; Zhang Yi;  
Offenhausser Andreas (Institute of Bio-and Nanosystems,  
Research Center Juelich, Wilhelm-Johnen-Strasse, 52428  
Juelich (DE))

EMAIL: a.pretzell@fz-juelich.de

SOURCE: Sensor Letters (2009) Volume 7, Number 3, pp. 286-288,  
8 refs.

ISSN 1546-198X

DOI: 10.1166/sl.2009.1054

Published by: American Scientific Publishers, 26650 The  
Old Road, Valencia, California, 91381-0751 (US)

COUNTRY OF PUBLICATION: United States

DOCUMENT TYPE: Journal; (Conference Paper)

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 11 Jan 2010

Last updated on STN: 11 Jan 2010

AN 2010-0112611287 COMPENDEX <<LOGINID::20100717>>

AB A gradiometric high temperature superconducting rf SQUID sensor made of  
Yttrium barium copper oxide is integrated in a microfluidic instrument  
for readout of magnetic nanoparticle (MNP) assays. Sample  
handling and freely adjustable distance of sample to sensor is achieved  
by guiding a capillary through the vacuum along the SQUID. Cooling is  
realized by means of inserting the SQUID directly into a slit in a  
sapphire finger. The particles are excited by a transverse  
magnetic field. The readout can be performed in relaxometric,  
susceptometric or frequency mixing mode. The system is designed to test  
different readout schemes and to determine the detection limit of MNP  
for biological concentration determination assays using the excellent  
sensitivity of a SQUID. Copyright .COPYRGT. 2009 American Scientific  
Publishers.

L6 ANSWER 21 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN

ACCESSION NUMBER: 2007-2410649679 COMPENDEX <<LOGINID::20100717>>

TITLE: High-temperature superconducting quantum interference  
device with cooled LC resonant circuit for measuring  
alternating magnetic fields with improved  
signal-to-noise ratio

AUTHOR(S): Qiu Longqing; Zhang Yi; Krause Hans-Joachim;  
Braginski Alex I.; Usoskin Alexander

CORPORATE SOURCE: Qiu Longqing; Zhang Yi; Krause Hans-Joachim; Braginski

Alex I. (Institute of Bio- and Nanosystem (IBN-2),  
Research Center Juelich, D-52425 Juelich (DE)); Qiu  
Longqing (Pohl Institute of Solid State Physics, Tongji  
University, Shanghai 200092 (CN)); Usoskin Alexander  
(European High Temperature Superconductors GmbH and Co.  
KG, D-63450 Hanau (DE))

SOURCE: Review of Scientific Instruments (2007) Volume 78,  
Number 5, 10 refs.  
CODEN: RSINAK ISSN: 0034-6748  
DOI: 10.1063/1.2735561  
Published by: American Institute of Physics

COUNTRY OF PUBLICATION: United States

DOCUMENT TYPE: Journal; Article; Application; Theoretical;  
Experimental

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 4 Jan 2009  
Last updated on STN: 4 Jan 2009

AN 2007-2410649679 COMPENDEX <<LOGINID::20100717>>

AB Certain applications of superconducting quantum interference devices  
(SQUIDS) require a magnetic field measurement only in a very  
narrow frequency range. In order to selectively improve the  
alternating-current (ac) magnetic field sensitivity of a  
high-temperature superconductor SQUID for a distinct frequency, a  
single-coil LC resonant circuit has been used. Within the liquid  
nitrogen bath, the coil surrounds the SQUID and couples to it  
inductively. Copper coils with different numbers of windings were used  
to cover the frequency range from <1 to nearly 100 kHz. A  
superconducting coil made of Y Ba2 Cu3 O7- $\delta$  tape conductor was  
also tested. With the LC circuit, the signal-to-noise ratio of  
measurements could be improved typically by one order of magnitude or  
more in a narrow frequency band around the resonance frequency exceeding  
a few kilohertz. The best attained equivalent magnetic field  
resolution was 2.5 fTHz at 88 kHz. The experimental findings are in good  
agreement with mathematical analysis of the circuit with copper coil.  
.COPYRGT. 2007 American Institute of Physics.

L6 ANSWER 26 OF 31 COMPENDEX COPYRIGHT 2010 EEI on STN

ACCESSION NUMBER: 1999-314696856 COMPENDEX <<LOGINID::20100717>>

TITLE: Magnetic field measurements on bridges and  
development of a mobile SQUID-system

AUTHOR(S): Krieger Juergen; Krause Hans-Joachim; Gampe  
Uwe; Sawade Gottfried

CORPORATE SOURCE: Krieger Juergen; Krause Hans-Joachim; Gampe Uwe; Sawade  
Gottfried (Federal Highway Research Inst, Bergisch  
Gladbach (DE))

SOURCE: Proceedings of SPIE - The International Society for  
Optical Engineering (1999) Volume 3587, pp. 228-239, 7  
refs.  
CODEN: PSISDG ISSN: 0277-786X  
Published by: Society of Photo-Optical Instrumentation  
Engineers  
Conference: Proceedings of 1999 Nondestructive  
Evaluation of Bridges and Highways III Newport Beach, CA, USA, 3 Mar  
1999-5 Mar 1999  
Organizer(s): SPIE; Federal Highway Administration

DOCUMENT TYPE: Conference; Article; Experimental

LANGUAGE: English

ENTRY DATE: Entered STN: 3 Jan 2009  
Last updated on STN: 3 Jan 2009

AN 1999-314696856 COMPENDEX <<LOGINID::20100717>>

AB In Germany, main bridge inspections are carried out every six years. Bridge inspection is mostly a visual inspection. As a result, faults are detected only if they become visible from the outside. Against this background, the application of Non-Destructive Testing (NDT) is proposed. NDT can detect faults before they become visible from outside. This has been confirmed in the detection of ruptures in the prestressing reinforcement. In a related work, a multi-channel system utilizing Superconducting Quantum Interference Devices (SQUID) has been designed and confirmed in laboratory measurements.

L6 ANSWER 28 OF 31 USPATFULL on STN

ACCESSION NUMBER: 2010:29891 USPATFULL <<LOGINID::20100717>>  
TITLE: METHOD FOR IDENTIFYING A SAMPLE IN A CONTAINER, E.G. WHEN CONDUCTING A TRAVELER SURVEY IN THE CHECK-IN AREA, BY DETERMINING THE RESONANCE FREQUENCY AND THE QUALITY OF A DIELECTRIC RESONATOR TO WHICH THE CONTAINER IS ARRANGED  
INVENTOR(S): Klein, Norbert, Juelich, GERMANY, FEDERAL REPUBLIC OF Krause, Hans-Joachim, Baesweiler, GERMANY, FEDERAL REPUBLIC OF Zander, Willi, Aldenhoven, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): FORSCHUNGSZENTRUM JUELICH GMBH, Juelich, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20100026300	A1	20100204
APPLICATION INFO.:	US 2007-311238	A1	20070924 (12)
	WO 2007-DE1712		20070924
			20090323 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2006-102006046657	20060929
	DE 2007-102007014492	20070322
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	JORDAN AND HAMBURG LLP, 122 EAST 42ND STREET, SUITE 4000, NEW YORK, NY, 10168, US	
NUMBER OF CLAIMS:	42	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	932	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method and apparatus for identifying a sample in a container, provide for the container with the sample being disposed relative to a resonator, a high-frequency signal being coupled into the resonator for exciting a resonant mode of the resonator, the resonant electric field of the resonator penetrating part of the sample in the container, the resonance curve of at least one resonant mode being measured with and without the sample, and the sample being identified based on the determined change in the resonance frequency compared to a measurement without sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> FIL STNGUIDE  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
95.44	96.32

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Jul 9, 2010 (20100709/UP).

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	1.12	97.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-8.50

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FILE 'METADEX' ENTERED AT 11:40:16 ON 17 JUL 2010  
 COPYRIGHT (c) 2010 Cambridge Scientific Abstracts (CSA)

FILE 'USPATFULL' ENTERED AT 11:40:16 ON 17 JUL 2010  
 CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

=> e zhang y/au

E1	2	ZHANG XZH/AU
E2	1	ZHANG XZHENGCHENG/AU
E3	19523 -->	ZHANG Y/AU
E4	117	ZHANG Y A/AU
E5	1	ZHANG Y A BEIJING INSTITUTE OF AERONAUTICAL MATERIALS/AU
E6	1	ZHANG Y A BEIJING UNIVERSITY OF AERONAUTICS AND ASTRO/AU
E7	1	ZHANG Y A CENTRAL SOUTH UNIVERSITY OF TECHNOLOGY/AU
E8	1	ZHANG Y A INSTITUTE OF PRECIOUS METALS/AU
E9	3	ZHANG Y A N/AU



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E10      1      ZHANG Y A N PING/AU
E11      1      ZHANG Y A QIN/AU
E12      1      ZHANG Y A SHANDONG INSTITUTE OF BUILDING MATERIALS/AU

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E1        1      ZHANG YFEN/AU
E2        1      ZHANG YHONG YUAN/AU
E3      8610 --> ZHANG YI/AU
E4        6      ZHANG YI ADVANCED MANUFACTURING RESEARCH INSTITUTE NA/AU
E5       43      ZHANG YI AN/AU
E6        1      ZHANG YI ANHUI UNIVERSITY OF TECHNOLOGY AND SCIENCE W/AU
E7        4      ZHANG YI BANG/AU
E8        2      ZHANG YI BAO/AU
E9        3      ZHANG YI BEI/AU
E10       1      ZHANG YI BIAO/AU
E11      73      ZHANG YI BIN/AU
E12     140      ZHANG YI BING/AU

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L7        361 "ZHANG YI"/AU AND MAGNETIC

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PROCESSING COMPLETED FOR L7
L8        280 DUP REM L7 (81 DUPLICATES REMOVED)

=> s l8 and oscillator
L9        5 L8 AND OSCILLATOR

=> d l9 1-5 ti

L9  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2010 ACS on STN
TI  Preparation method and device for multi-pulse interference ramsey-coherent
    population trapping (cpt) stripe

L9  ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2010 ACS on STN
TI  Method and device for selectively detecting ferromagnetic or
    superparamagnetic particles

L9  ANSWER 3 OF 5  CAPLUS  COPYRIGHT 2010 ACS on STN
TI  Rf-SQUID with an integrated lambda-microwave resonator as a
    high-sensitivity magnetometer

L9  ANSWER 4 OF 5  USPATFULL on STN
TI  Method and device for selectively detecting ferromagnetic or
    superparamagnetic particles.

L9  ANSWER 5 OF 5  USPATFULL on STN
TI  System and method for orthogonal inductance variation

=> e wolters n/au
E1        6      WOLTERS MINEKE/AU
E2        2      WOLTERS MONICA S/AU
E3      46 --> WOLTERS N/AU
E4        1      WOLTERS N C/AU
E5        1      WOLTERS N C W/AU
E6        4      WOLTERS N M/AU
E7        8      WOLTERS NATALIE M/AU
E8        1      WOLTERS NIGEL/AU
E9        1      WOLTERS NORBE R T/AU
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E11 51 WOLTERS NORBERT/AU  
E12 2 WOLTERS OSWALD H/AU

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L10 51 "WOLTERS NORBERT"/AU

=> s l10 and magnetic  
MISSING OPERATOR L10 AND  
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nested terms that are not separated by a logical operator.

=> s l10 and magnetic  
L11 10 L10 AND MAGNETIC

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PROCESSING COMPLETED FOR L11  
L12 7 DUP REM L11 (3 DUPLICATES REMOVED)

=> d l12 1-7 ti

L12 ANSWER 1 OF 7 USPATFULL on STN  
TI Method and device for selectively detecting ferromagnetic or  
superparamagnetic particles.

L12 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 1  
TI Magnetic particle detection by frequency mixing for immunoassay  
applications

L12 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 2  
TI Detection of magnetic contaminations in industrial products  
using HTS SQUIDS

L12 ANSWER 4 OF 7 COMPENDEX COPYRIGHT 2010 EEI on STN  
TI Multi-channel HTS rf SQUID gradiometer system recording fetal and adult  
magnetocardiograms

L12 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN  
TI Method and device for selectively detecting ferromagnetic or  
superparamagnetic particles

L12 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 3  
TI Recording fetal and adult magnetocardiograms using high-temperature  
superconducting quantum interference device gradiometers

L12 ANSWER 7 OF 7 COMPENDEX COPYRIGHT 2010 EEI on STN  
TI HTS SQUID gradiometer using substrate resonators operating in an  
unshielded environment - A portable MCG system

=> d l12 5 ibib abs

L12 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2004:740570 CAPLUS <<LOGINID::20100717>>  
DOCUMENT NUMBER: 141:252811  
TITLE: Method and device for selectively detecting  
ferromagnetic or superparamagnetic particles  
INVENTOR(S): Mieth, Peter; Krause, Hans-joachim; Zhang, Yi;  
Wolters, Norbert; Plaksin, Dmitry  
PATENT ASSIGNEE(S): Forschungszentrum Juelich GmbH, Germany  
SOURCE: PCT Int. Appl., 44 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004077044	A1	20040910	WO 2004-DE149	20040130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10309132	A1	20041118	DE 2003-10309132	20030228
EP 1597573	A1	20051123	EP 2004-706604	20040130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006519366	T	20060824	JP 2006-501481	20040130
US 20070155024	A1	20070705	US 2007-547444	20070209
PRIORITY APPLN. INFO.:			DE 2003-10309132	A 20030228
			WO 2004-DE149	W 20040130

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention relates to a method for selectively detecting and/or quantifying superparamagnetic and/or ferromagnetic particles on analytes. The method is characterized in that a frequency component of the magnetic fields, which is generated due to the nonlinearity of the magnetization characteristic curve of the particles, is measured at a mixing frequency. A device for selectively detecting and/or quantifying superparamagnetic and/or ferromagnetic particles on analytes comprises the following: a container that contains particles, which are to be detected and/or quantified, on analytes; at least one oscillator for generating frequencies of alternating magnetic fields; at least one field generator for subjecting the analytes to alternating magnetic fields; a magnetic field sensor for measuring a response magnetic field of the particles, and; at least one phase-sensitive detector. These elements are configured in such a manner as to enable a frequency component of the magnetic fields, which is generated due to the nonlinearity of the magnetization characteristic curve of the particles, to be measured at a mixing frequency.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> e plaksin dmitry/au

E1	1	PLAKSIN DMITRIJ J/AU
E2	1	PLAKSIN DMITRIJ YU/AU
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E7	10	PLAKSIN E D/AU
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E9	8	PLAKSIN E K/AU
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E11	2	PLAKSIN EUGEN/AU
E12	2	PLAKSIN F G/AU

=> s e3

L13 4 "PLAKSIN DMITRY"/AU

=> d l13 1-4 ti

L13 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

TI Method and device for selectively detecting ferromagnetic or superparamagnetic particles

L13 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

TI The application of monoclonal antibodies for barley stripe mosaic virus detection

L13 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

TI Monoclonal immunoenzyme test system for beet necrotic yellow vein virus detection

L13 ANSWER 4 OF 4 USPATFULL on STN

TI Method and device for selectively detecting ferromagnetic or superparamagnetic particles.

=> logoff y

(FILE 'HOME' ENTERED AT 11:19:01 ON 17 JUL 2010)

FILE 'CAPLUS, MEDLINE, BIOSIS, BIOTECHNO, COMPENDEX, ANABSTR, CERAB, METADEX, USPATFULL' ENTERED AT 11:21:29 ON 17 JUL 2010

E MIETHE P/AU

L1 37 SEA FILE=MFE SPE=ON ABB=ON PLU=ON "MIETHE P"/AU

L2 21 DUP REM L1 (16 DUPLICATES REMOVED)

D L2 1-21 TI

D L2 2-3 IBIB ABS

E KRAUSE H/AU

E KRAUSE HANS-JOACHIM/AU

E KRAUSE HANS/AU

L3 151 SEA FILE=MFE SPE=ON ABB=ON PLU=ON ("KRAUSE HANS J"/AU OR "KRAUSE HANS JOACHI"/AU OR "KRAUSE HANS JOACHIM"/AU)

L4 127 DUP REM L3 (24 DUPLICATES REMOVED)

L\*\*\* DEL 81 S E10-E12

L\*\*\* DEL 5 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 40 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L5 3 SEA FILE=MFE SPE=ON ABB=ON PLU=ON L4 AND OSCILLATOR

L\*\*\* DEL 81 S E10-E12

L\*\*\* DEL 5 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 40 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L\*\*\* DEL 11 S E10-E12

L6 31 SEA FILE=MFE SPE=ON ABB=ON PLU=ON L4 AND MAGNETIC

D L6 1-31 TI

D 1-4, 6, 8, 10, 11-13, 20, 21, 26, 28 IBIB ABS

FILE 'STNGUIDE' ENTERED AT 11:30:37 ON 17 JUL 2010

FILE 'CAPLUS, MEDLINE, BIOSIS, BIOTECHNO, COMPENDEX, ANABSTR, CERAB, METADEX, USPATFULL' ENTERED AT 11:40:16 ON 17 JUL 2010

E ZHANG Y/AU

E ZHANG YI/AU

L7 361 SEA FILE=MFE SPE=ON ABB=ON PLU=ON "ZHANG YI"/AU AND  
MAGNETIC

L8 280 DUP REM L7 (81 DUPLICATES REMOVED)

L\*\*\* DEL 116 S E3 AND MAGNETIC

L\*\*\* DEL 52 S E3 AND MAGNETIC

L\*\*\* DEL 35 S E3 AND MAGNETIC

L\*\*\* DEL 53 S E3 AND MAGNETIC

L\*\*\* DEL 99 S E3 AND MAGNETIC

L\*\*\* DEL 53 S E3 AND MAGNETIC

L\*\*\* DEL 1 S E3 AND MAGNETIC

L\*\*\* DEL 5 S E3 AND MAGNETIC

L\*\*\* DEL 53 S E3 AND MAGNETIC

L9 5 SEA FILE=MFE SPE=ON ABB=ON PLU=ON L8 AND OSCILLATOR

D L9 1-5 TI

E WOLTERS N/AU

L10 51 SEA FILE=MFE SPE=ON ABB=ON PLU=ON "WOLTERS NORBERT"/AU

L11 10 SEA FILE=MFE SPE=ON ABB=ON PLU=ON L10 AND MAGNETIC

L12 7 DUP REM L11 (3 DUPLICATES REMOVED)

D L12 1-7 TI

D L12 5 IBIB ABS

E PLAKSIN DMITRY/AU

L13 4 SEA FILE=MFE SPE=ON ABB=ON PLU=ON "PLAKSIN DMITRY"/AU

D L13 1-4 TI

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

33.08

130.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-0.85

-9.35

STN INTERNATIONAL LOGOFF AT 11:45:11 ON 17 JU